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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/629,381	07/29/2003	Christopher M. Doran	2335	6533
28005 7590 04/20/2007 SPRINT 6391 SPRINT PARKWAY KSOPHT0101-Z2100 OVERLAND PARK, KS 66251-2100			EXAMINER NGO, NGUYEN HOANG	
			ART UNIT	PAPER NUMBER
			2616	
SHORTENED STATUTORY PERIOD OF RESPONSE		MAIL DATE	DELIVERY MODE	
3 MONTHS		04/20/2007	PAPER	

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

**Office Action Summary**

Application No.

10/629,381

Applicant(s)

DORAN, CHRISTOPHER M.

Examiner

Nguyen Ngo

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 29 July 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-23 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

***Claim Rejections - 35 USC § 112***

1. Claim 14 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
- 2.
3. Claim 14 recites the limitation "the instructing function" in line 4. There is insufficient antecedent basis for this limitation in the claim.

***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-3, 5, 6, 7, 12, 14, 15, 20, 21, are rejected under 35 U.S.C. 102(e) as being anticipated by Edwards (US 2004/0228292), hereinafter referred to as Edwards.

**Regarding claim 1, 12, 20, Edwards discloses a method comprising:**

during initiation of a real-time media session between a plurality of user stations (310 and 320 of figure 3) via a communication server (system control 308 provides needed coordination between cell sites and assigns the necessary system resources to support the full duplex dispatch call, page 2 [0018] and figure 3), the communication server instructing at least one of the user stations to operate in a mode selected from the group consisting of half-duplex mode and full-duplex mode (switch to full duplex mode or continue to use a half duplex mode of operation, page 1 [0014] and figure 1).

**Regarding claim 2,** Edward discloses the method of claim 1, further comprising:

the communication server selecting the mode (the system controller in response to receiving the full duplex dispatch call request will provide the necessary channel resources to support a full duplex call (page 1 [0012])).

**Regarding claim 3,** Edwards discloses the method of claim 2, wherein each user station is (i) a half-duplex capable station or (ii) a half-duplex and full-duplex capable station (mobile stations 310 and 320 of figure 3 capable of operating in full duplex or half duplex mode, page 2 [0016]), and wherein selecting the mode comprises:

the communication server learning that at least one of the user stations is half-duplex capable and responsively selecting half-duplex as the mode (users who are participating in a call are placed in the full duplex mode or half duplex mode, page 1 [0013]).

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**Regarding claim 5**, Edwards discloses the method of claim 1, wherein instructing the at least one user station to operate in the mode comprises:

    sending an instruction to the at least one user station, the instruction indicating the mode (distinct audio/visual alert indicating the mode, page 1 [0014]).

**Regarding claim 6**, Edward discloses the method of claim 5, wherein sending the instruction comprises sending the instruction within session setup signaling (page 2 [0016]).

**Regarding claim 7**, Edward discloses the method of claim 1, further comprising:

    a given one of the user stations receiving the instruction and responsively operating in the mode during the real-time media session (page 1 [0014]).

**Regarding claim 14**, Edwards discloses the method of claim 1, further comprising:

    during initiation of the real-time media session, the communication server receiving from a user station a request to operate in the mode (system controller in response to receiving the full duplex dispatch call request (page 1 [0012]); and

    the server responsively performing the instructing function (provide the necessary resources to support the full duplex call (page 1 [0012])).

**Regarding claim 15**, Edward discloses a method comprising:

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a user station (310 and 320 of figure 3) receiving from a communication server (system controller 308 of figure 3) an instruction indicating whether the user station should operate in a half-duplex mode or a full-duplex mode (determination if it wants to switch to full duplex mode or continue to use half duplex mode of operation, page 1 [0014]);

the user station engaging in a real-time media session with one or more other user stations via the communication server (mobile station 310 and 320 communicating to each other via system controller 308 of figure 3), and, in response to the instruction, the user-station operating in the mode during the real-time media session (full duplex mode or half duplex mode of operation, page 1 [0014]).

**Regarding claim 21,** Edward discloses a user station (mobile station 310 and 320 of figure 3) comprising:

- a processor (controller 406 of figure 4);

- a communication interface (RF modulator/demodulator 408 of figure 4);

- data storage (memory 418 of figure 4);

- instructions stored in the data storage and executable by the processor (i) to engage in a packet-based real-time media session with one or more other user stations via communication server (system control 308 of figure 3), (ii) to receive from the communication sever an instruction to operate in a mode selected from the group consisting of half-duplex and full-duplex, and (iii) to operate in the mode during the

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packet-based real-time media session (switch to full duplex mode or continue to use a half duplex mode of operation, page 1 [0014] and figure 1).

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

5. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Edwards (US 2004/0228292), in view of Sun et al. (US 6501740), hereinafter referred to as Edwards and Sun.

**Regarding claim 4**, Edwards fails to specifically disclose the limitation of during the real-time media session, the communication server detecting that a half-duplex capable station joins the session and responsively instructing each other participating station to operate in the half-duplex mode. Edward however discloses that users of mobile

stations may operate in a full duplex mode or half duplex mode (page 1 [0014]) and that users may terminate the communication if a device leaves the coverage area of the communication system (page 2 [0016]). Sun further discloses the concept of having a user wishing to join an existing teleconference selects the join button (col7 lines 54-58) and that the teleconference are operable in full duplex or half duplex modes (col7 lines 15-20). It would have thus been obvious to a person skilled in the art at the time the invention was made to incorporate the concept of having the capability of joining an existing conference as disclosed by Sun into the method for providing full duplex and half duplex dispatch calls, in order to efficiently ensure that users of mobile devices are capable of joining conference calls that are held in half duplex or full duplex modes.

6. Claim 8, 9, 10, 11, 13, 16, 17, 18, 19, 22, 23, is rejected under 35 U.S.C. 103(a) as being unpatentable over Edwards (US 2004/0228292), in view of Palaez et al. (2004/0190489), hereinafter referred to as Edwards and Palaez.

**Regarding clam 8, 11, 13, 16, 19, 22, 23,** Edwards fails to specifically disclose wherein operating in the mode during the real-time media session comprises:

receiving an incoming media stream from the communication server while sending an outgoing media stream to the communication server during the real-time media session;

treating the incoming media stream as a floor denial if the mode is half-duplex;

playing out the incoming media stream if the mode is full-duplex. Edward however discloses of the well-known concept of push to talk, which involves half-duplex



communications (page 1 [0003]). Palaez further discloses PTT (push to talk) services is a half-duplex mode of communication in which communications occur in only one direction and that many communication are bi-directional which is a full duplex communication (page 1 [0005]). Palaez further discloses that in PTT operational mode, to control which party in a call session has transmission rights, correlating to having the floor; the user pushes a PTT button (page 1 [0006]). Thus it would have been obvious to a person skilled in the art at the time the invention was made to incorporate the well known concept of preventing an incoming media stream in a half duplex mode and allowing the incoming media stream if the mode is full duplex as disclosed by Palaez into the method for providing full duplex or half duplex dispatch calls as disclosed by Edwards. It should further be noted that it is well known that in half duplex mode communications, only one direction of communications is allowed to occur and that a floor is used to distinguish the user and the direction of communication.

**Regarding claims 9,10, 17, 18,** the combination of Edwards and Palaez fails to specifically disclose the limitation of presenting a floor denial alert to a user in response to receipt of the incoming media stream. Edwards however discloses of using audio/visual alerts indicating to the users of what mode to operate in (page 1[0014]). Thus it would have been obvious to a person skilled in the art at the time the invention was made to use a floor denial alert in response to receipt of the incoming media stream in order to effectively alert users of a communication device the capable operations in full/half duplex modes.

***Conclusion***

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

a) Tillet et al. (US 2006/0025165), Wireless Communications System Providing Seamless Switching Between Full-Duplex and Half-Duplex Modes.

b) Naddell et al. (US 5450618), Full Duplex and Half Duplex Communication Unit With Volume Setting.

c) Thakkar et al. (US 2004/0127251), Method And Apparatus For Mixed Mode Personal Communication

d) Schmidt (US 6522894), Simplified Speaker Mode Selection For Wireless Communications Device

e) Saidi et al. (US 2005/0044256), Method And Apparatus For Suppressing Silence In Media Communications.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nguyen Ngo whose telephone number is (571) 272-8398. The examiner can normally be reached on Monday-Friday 7am - 3:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wing Chan can be reached on (571) 272-7493. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

*N.N.*  
**Nguyen Ngo**

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